

Application No.: 10/667,605Docket No.: 4459-130

BEST AVAILABLE COPY

REMARKS

Applicants appreciate the Examiner's thorough review of the present application, and respectfully request reconsideration in light of the preceding amendments and the following remarks.

Claims 1-5, 10-16 and 20-31 are pending in the application. Non-elected claims 6-9 and 17-19 have been cancelled. Independent claims 1, 10 and 20 have been amended to better define the claimed invention. Claims 2-4, 11, and 21-22 have also been amended to improve claim language. New claims 25-31 have been added to provide Applicants with the scope of protection to which they are believed entitled. The Abstract has been revised to conform with commonly accepted US patent practice. No new matter has been introduced through the foregoing amendments.

The art rejections primarily relying on U.S. Patent No. 4,732,042 to *Adams* are traversed because the reference clearly fails to teach or suggest the originally claimed **optical element**. The Examiner's attempt to read element 14 of *Adams* on the claimed optical element is inappropriate because element 14 in *Adams* is a pressure sensor, rather than an optical element. The art rejections relying in *Adams* are therefore inappropriate and should be withdrawn.

Notwithstanding the above, Applicants have amended the independent claims to further define the claimed invention over the art. It should be noted that the amendments have been made solely for the purpose of expediting prosecution and are not necessitated by the Examiner's rejections.

In particular, claim 1 has been amended to additionally recite the bonding pads and the transparent material of the window and encapsulant. Amended claim 1 finds solid support in both the original specification, e.g., at page 3, lines 8-12 and page 3, lines 15-19, and the original drawings, e.g., FIG.2.

Application No.: 10/667,605Docket No.: 4459-130

*Adams* clearly fails to disclose, teach or suggest the newly claimed bonding pads of amended claim 1.

Furthermore, the "window," recited in amended claim 1 to be made of a **transparent material** for allowing light to transmit through the window and interact with the optical element, is distinctly different from the *Adams* "cavity" 15 which is merely an empty space. Since cavity 15 of *Adams* is an empty space, it cannot be considered to be supported by a support as presently claimed.

Finally, the newly claimed **transparent encapsulant** of amended claim 1 is also patentably distinguishable from "opaque" material 19 of *Adams*.

For any of the reasons advanced above, Applicants respectfully submit that amended claim 1 is patentable over *Adams*.

Claims 2-5 and new claim 25 depend from claim 1, and are considered patentable at least for the reasons advanced with respect to amended claim 1. Claims 2-5 and 25 are also patentable on their own merits since these claims recite other features of the invention neither disclosed, taught nor suggested by the applied art.

For example, as to claim 3, the applied reference clearly fails to disclose, teach or suggest the claimed **snapping elements** respectively disposed on the window and the support for snapping the window with the support. In *Adams*, lid 18 is simply placed on shoulder 11d as best seen in FIG. 2A. There is no snapping action disclosed or suggested by *Adams*.

As to claim 5, the applied reference clearly fails to disclose, teach or suggest the claimed **lens**. In *Adams*, element 18 is simply a lid with a hole 18a therein. A person of ordinary skill in the art would at once recognize that the hole will simply transmit light, if at all, without any lensing effect, and therefore cannot be considered a lens.

Application No.: 10/667,605Docket No.: 4459-130

As to new claim 25, the applied reference clearly fails to disclose, teach or suggest the claimed **optical sensor**. *Adams* teaches a pressure, rather than an optical, sensor.

Independent claim 10 has been amended to additionally recite numerous features similar to the added limitations of amended claim 1. Amended claim 10 finds solid support both in the original specification, e.g., at page 4, lines 28-29; page 3, lines 8-12; and page 3, lines 15-19, and the original drawings, e.g., FIG. 5. *Adams* clearly fails to disclose, teach or suggest the newly claimed features of claim 10 for the reasons advanced with respect to amended claim 1. Therefore, amended claim 10 is patentable over *Adams*.

Claims 11-15 and new claims 26-27 depend from claim 10, and are considered patentable at least for the reasons advanced with respect to amended claim 10. Claims 11-15 and 26-27 are also patentable on their own merits since these claims recite other features of the invention neither disclosed, taught nor suggested by the applied art.

For example, as to claim 14, note the discussion *supra* with respect to claim 5.

As to claims 26-27, the applied reference clearly fails to disclose, teach or suggest the claimed optical element which comprises one selected from the group consisting of an **optical sensor** and an **imaging sensor**. *Adams*, as discussed above, merely teaches a pressure sensor.

Independent claim 20 has been amended to additionally recite numerous features similar to the added limitations of amended claim 1. Amended claim 20 finds solid support both in the original specification, e.g., at page 5, lines 9-10; page 3, lines 8-12; and page 3, lines 15-19, and the original drawings, e.g., FIG. 6. *Adams* clearly fails to disclose, teach or suggest the newly claimed features of claim 20 for the reasons advanced with respect to amended claim 1. Therefore, amended claim 20 is patentable over *Adams*.

Application No.: 10/667,605Docket No.: 4459-130

Claims 21-24 and new claim 28 depend from claim 20, and are considered patentable at least for the reasons advanced with respect to amended claim 20. Claims 21-24 and 28 are also patentable on their own merits since these claims recite other features of the invention neither disclosed, taught nor suggested by the applied art.

For example, as to claim 24, note the discussion *supra* with respect to claim 5.

As to claim 28, the applied reference clearly fails to disclose, teach or suggest the claimed optical element which is an **optically sensitive element**. *Adams*, as discussed above, merely teaches a sensor which is pressure sensitive.

New independent claim 29 is directed to an optical semiconductor package, comprising a substrate having opposite upper and lower surfaces; a chip disposed on the upper surface of said substrate and having an **optical sensor**; a plurality of bonding wires electrically connecting the chip to the substrate; a supporting wall extending upwardly from the upper surface of said substrate; a window made of a transparent material and supported by said supporting wall at a location above said optical sensor for allowing light to transmit through the window and interact with the optical sensor; and an encapsulant formed on the upper surface of said substrate to surround said supporting wall. New independent claim 29 is patentable over *Adams* at least because the reference fails to disclose, teach or suggest the claimed optical sensor. *Adams*, as discussed above, merely teaches a pressure sensor.

Claims 30-31 depend from claim 29, and are considered patentable at least for the reason advanced with respect to claim 29. Claims 30-31 are also patentable on their own merits since these claims recite other features of the invention neither disclosed, taught nor suggested by the applied art, as will be apparent to the Examiner upon reviewing these claims.

Each of the Examiner's rejections has been traversed. Accordingly, Applicants respectfully submit that all claims are now in condition for allowance. Early and favorable indication of

Application No.: 10/667,605Docket No.: 4459-130

allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

  
LOWE HAUPTMAN & BERNER, LLP

  
Benjamin J. Hauptman  
Registration No. 29,310

USPTO Customer No. 22429  
1700 Diagonal Road, Suite 310  
Alexandria, VA 22314  
(703) 684-1111 BJH/KL/klb  
(703) 518-5499 Facsimile  
Date: March 11, 2005

CERTIFICATION OF FACSIMILE TRANSMISSION  
I HEREBY CERTIFY THAT THIS PAPER IS BEING FACSIMILE TRANSMITTED  
TO THE PATENT AND TRADEMARK OFFICE ON THE DATE SHOWN BELOW

  
Kindra Bryant  
TYPE OR PRINT NAME OF PERSON SIGNING CERTIFICATION

  
\_\_\_\_\_  
SIGNATURE \_\_\_\_\_  
\_\_\_\_\_  
March 11, 2005  
DATE

  
\_\_\_\_\_  
703-872-9306  
FACSIMILE NUMBER